Abstract of the Disclosure

SYMBOLIC EVALUATION ENGINE FOR HIGH-PERFORMANCE SIMULATIONS

A method is provided of simulating a system. The method defines equations modeling the system using terms having characteristics encapsulated within the term. Next, the method performs symbolic processing on the established equations for simplification. Additionally, the method performs system processing on the established equations for efficient simulation. Aspects of some embodiments of the described invention include a method of symbolically processing a set of equations, a method of eliminating an integral in a Pantelides algorithm, and a method of tearing block equation blocks.